

REGULATION OF CHILLING SENSITIVITY IN WARM-ZONE CROPS (A.I.D. PROJECT 5.143)

Progress Report
by
Chaim Frenkel
Department of Horticulture and Forestry
Rutgers University
P.O. Box 231
New Brunswick, N.J. 08903

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I. ACTIVATION OF THE PROJECT

1. Budget Negotiations and Approval.

Following submission of a revised budget, revised list of equipment, drafts of sub-contracts (with Panama and Brazil) and a letter regarding omission of overhead (a letter by Dr. R. Hertford Director of the International Agricultural and Food Program office IAFP, August 20, 1986, copy attached) AID awarded Rutgers University the sum of \$133,300 to pursue Grant No. PDC-5542-G-SS-510500 on the Regulation of Chilling Sensitivity of Warm-Zone Crops (A.I.D. project 5.143). The additional amount of \$12,291 (omitted overhead) may be provided at a later date to cover overhead expenses incurred by Rutgers University. Rutgers accepted under these provisions.

2. Contracts Arrangements and Approval.

Sub-contracts were sent to Panama and Brazil on December 10, 1985 and an ammendment to the contract on January 28, 1986. Panama approved and on April 7, 1986 signed the ammended subcontract (Please see copy). Brazil has not signed yet the sub-contract.

Requests to Brazil approve the sub-contract went out on December 10, 1985, January 28, 1986, and February 28, 1986 (please see attached copies) and were unanswered. During my visit to CNPFT/EMBRAPA, Pelotas, Rio Sue Brazil (see below II.1.) I was informed by the station head that the documents were lost. When provided with a new copy of the sub-contract a follow-up reply from the EMBRAPA headquarters in Brasilia dated August 24, 1986 (copy attached) proposed the following ammendments: a new Co-PI, at their choice, and a limit on the Brazil Co-PI exchange-visit to the U.S.A. (four instead of twelve months in two increments). These provisions are unacceptable; The Brazil Co-PI, Dr. P.J. Araujo, a former student, is well trained in post harvest physiology and the appropriate technology and is well prepared for the project. Also, the exchange terms are inadequate.

A sub-contract was resubmitted directly to the EMBRAPA headquarters in Brasilia (copy attached) requesting that these provisions be changed to the original terms. When approved and signed, the Brazil project will be activated. The indications are that it will end well.

THE STATE UNIVERSITY OF NEW JERSEY
RUTGERS

Cook College • International Agricultural and Food Program Office
P.O. Box 231 • New Brunswick • New Jersey 08903 • 201/932-8954

August 20, 1985

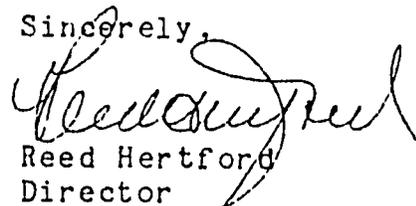
Mr. Mike Nicholas
Office of Contract Management
USAID
M/SER/CM/SOD/PDC
Washington, DC 20523

Dear Mike:

I am writing with reference to PSTC proposal #5.143, entitled, "Regulation of Chilling Sensitivity of Warm Zone Crops."

As prime contractor under PSTC project 5.143, Rutgers University should charge overhead on the first \$25,000 of its subcontracts with the University of Panama and EMBRAPA of Brazil. These charges were omitted from the project budget. Since we understand that no additional funds are available under the PSTC program for the current fiscal year, we reluctantly agree to waive overhead charges on the subcontracts, but will apply for additional funds to cover those charges in the next fiscal year. However, if that application is not approved, we will absorb those overhead charges.

Sincerely,


Reed Hertford
Director

THE STATE UNIVERSITY OF NEW JERSEY
RUTGERS

Cook College • International Agricultural and Food Program Office
P.O. Box 231 • New Brunswick • New Jersey 08903 • 201-932-8954

August 21, 1985

Mr. Mike Nicholas
Office of Contract Managemen
USAID
M/SER/CM/SOD/PDC
Washington, DC 20523

Dear Mike:

I am writing with reference to PSTC proposal #5.143, entitled "Regulation of Chilling Sensitivity of Warm Zone Crops."

I am enclosing the following items as agreed:

- Revised budget
- Revised list of equipment
- Draft subcontracts with Brazil and Panama
- Letter regarding omission of overhead

I checked with the Controller's Office regarding the standard provisions that you forwarded. They have no problem with them.

We look forward to wrapping up this contract. Thank you for your cheerful assistance throughout.

Sincerely,

Judith L. Snow, PhD
Assistant Director

AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON D C 20523

August 31, 1985

Mr. Albert Hanna
Assistant Controller
Rutgers University
Research Contract Office
P.O. Box 1089
Piscataway, NJ 08854

SUBJECT:

GRANT No. PDC-5542-G-SS-5105-00
Regulation of Chilling Sensitivity of
Warm-Zone Crops (5.143)

Dear Mr. Hanna:

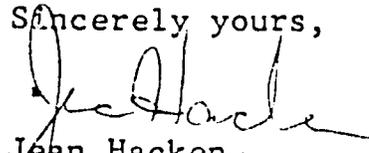
Pursuant to the authority contained in the Foreign Assistance Act of 1961, as amended, the Agency for International Development (hereinafter referred to as "AID" or "Grantor") hereby grants to Rutgers University (hereby referred to as "Grantee"), the sum of \$133,300 to support your research program as described in Attachment 1, entitled "Schedule", and Attachment 2, entitled "Program Description". This support is provided under AID's "Innovative Scientific Research Program." The total estimated cost of the program to AID is \$145,591. An additional amount of \$12,291 may be provided at a later date, subject to the availability of funds.

This grant is effective and obligation is made as of the date of this letter and shall apply to commitments made by the Grantee in furtherance of program objectives during the period beginning August 31, 1985 and ending August 30, 1988.

This grant is made to the Grantee on condition that the funds will be administered in accordance with the terms and conditions set forth in the Schedule; the Program Description; Attachment 3, entitled "Index of Standard Provisions"; and Attachment 4, entitled "Alterations in Grant."

Please sign and return the original and six (6) copies of this letter to acknowledge your receipt of the grant.

Sincerely yours,



Jean Hacken
Grant Officer
Chief, PDC Branch
Services Operations Division
Office of Contract Management

700 235 275
8905

Attachments:

- 1. Schedule
- 2. Program Description
- 3. Index of Standard Provisions
- 4. Alterations in Grant

ACKNOWLEDGED:

Rutgers University

BY: _____

TITLE: _____

DATE: _____

Fiscal Data

Project No.: 936-5542
 Obligation No.: 936-5542-5361395
 Budget Plan Code: DDAA-85-10600-DG-11
 Appropriation Symbol: 72-1151021.6
 Allotment Symbol: 546-36-099-00-19-51
 Total Estimated Amount: \$145,591
 Obligated This Action: \$133,300
 Project Officer: Robert F. Morris, S&T/AGR
 DUNS No.: 001912864

UNIVERSIDAD DE PANAMA



Vicerrectoría de Investigación y Postgrado

Original - 1000-1000-6

4/15

Dirección de Cooperación
y Asistencia Técnica

7 April 1986

Mr. Reed Hertford
Director
The State University of
New Jersey RUTGERS
Cook College
International Agricultural and Food
Program Office
P. O. Box -231
New Brunswick, N. J. 08903
U. S. A.

Dear Mr. Reed:

In relation to your letter of February 28, 1986 it is a pleasure for me to return a copy of Amendment N°1, Sub-contract between our two Universities to collaborate in the AID sponsored project: "Regulation of Chilling Sensitivity in Warm-Zone Crops".

We look forward to a fruitful collaboration.

Sincerely,

Handwritten signature of Mahabir P. Gupta in black ink.
Mahabir P. Gupta, Ph. D.
Director

mf.

Encl



Cook College • International Agricultural and Food Program Office
P.O. Box 231 • New Brunswick • New Jersey 08903 • 201/932-8954

SUBCONTRACT

between

RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY

and

THE UNIVERSITY OF PANAMA

This subcontract, entered into as of September 1, 1985 by and between Rutgers, the State University of New Jersey (hereinafter referred to as "Rutgers"), and the University of Panama (hereinafter referred to as "UP"),

Witnesseth that:

Whereas Rutgers received Grant PDC-5542G-SS-5105-00 from the U.S. Agency for International Development (hereinafter called "USAID") to undertake collaborative research on chilling sensitivity in warm zone crops with UP; and

Whereas Rutgers desires to have UP perform a part of the research activities;

Now, therefore, the parties hereto mutually agree as follows:

I. Scope of Work

UP shall provide the services of Ms. Giselle Benjamin as national project director for approximately 20 months over a three-year period. During that period Ms. Benjamin will spend 12 of those months in New Brunswick, New Jersey as a direct employee of Rutgers, as outlined in the final proposal of February 3, 1985, which was submitted by Rutgers for consideration under the USAID Program in Science and Technology Cooperation.

II. Period of Agreement

UP shall provide the services described herein between September 1, 1985 and August 31, 1988. This agreement shall remain valid through August 31, 1988.

III. Estimated Cost

The estimated maximum cost of this agreement shall be \$23,200. These costs shall be reimbursed in accordance with the following budget. Deviations in excess of 20 percent in any cost item category shall require prior approval from Rutgers University, P. O. Box 231, New Brunswick, NJ 08903, Telex 517522.

1. Research supplies	\$13,500
2. Research equipment	6,500
3. Travel and Transportation	3,200
	<hr/>
Total	\$23,200

IV. Payment

Rutgers shall reimburse UP for those costs detailed in Clause III above on the receipt of claims for reimbursement which are certified by UP's fiscal representative.

V. Financial Reporting

UP shall maintain and have available for audit purposes appropriate financial records for a period of three years following the termination of this agreement. UP shall provide periodic progress and financial reports to Rutgers at mutually acceptable intervals.

VI. Insurance Liability

UP shall acquire and maintain such insurance as is required for its employees affected by this agreement, including employer's liability, comprehensive general liability insurance, Defense Base Act Insurance, etc.

VII. Availability of Staff

If for medical reasons, or others beyond his/her control, a UP staff member should be unable to provide the services described herein, Rutgers will reimburse UP for all costs and non-cancelable commitments incurred prior to such

occurrence, provided UP had on file on September 1, 1985, an up-to-date indication of medical fitness.

If a UP staff member should fail to complete the services stipulated by this agreement for reasons within his/her control, Rutgers will not reimburse UP for any expenses associated with his/her participation in this project.

VIII. Termination

This agreement may be terminated in whole or in part by either party with 60 days prior written notice. In the event of termination, credit shall be allowed for the amount required to settle any non-cancelable obligations incurred prior to the date of the notice of termination.

IX. General Provisions

The general provisions applicable to this subcontract consist of form AID-1420-23-C, "General Provision - Cost Reimbursement Contract with an Educational Institution" dated October 1982, and form AID 1420-23-D, "Additional General Provisions - Cost Reimbursement Contract with an Educational Institution" dated October 1982.

In addition to those documents cited above, this subcontract shall include schedules 1420-54A through 1420-54P.

UP assures Rutgers that it will:

1. provide for accurate identification of the receipts and expenditures of project funds by approved budget cost categories,
2. provide for documentation supporting each book entry,
3. provide accurate and current financial reporting information,
4. be integrated with a strong system of internal control,
5. and will conform to any and all requirements or guidelines that AID may issue.

UP shall be responsible to Rutgers for any and all costs disallowed in the event of subsequent audit within the subcontract.

In witness thereof, Rutgers and UP have executed this agreement on the date first written above.

Rutgers

BY: [Signature]
Albert Hanna
Assistant Controller

DATE: November 23 1985



BY: [Signature]

DATE: 1986-04-07

TELEX RECEIVED AT BOOKSTORE AND TAKEN ON PHONE BY FRAN.
(FEBRUARY 21, 1985)

DR. CHAIM FRENKEL:

WE APPROVE CHANGES IN PROJECT "CHILLING" NR5-143
SUBMITTED TO AID. A LETTER WILL FOLLOW WITH SIGNED
DOCUMENTS.

FROM: EDY DE ARAUJO FERNANDO, CHIEF CNPFT/EMB/RAPA

EASYLINK MBX 2734403A001 21AUG85 07:24/17:17 EST
VIA: 517522

TO: 62805520

VIA WUI
IAFP US

532301EBPA BR ← EMBRAPA, BRAZIL

TLX CNPFT NR. 528/85
EM 21-08-85

PARA: C. FRENKEL COOK COLLEGE
RUTGERS UNIVERSITY
NEW JERSEY - USA

CONFIRMING 20./ . OVERHEAD 'CHILLING SENSITIVITY PROJECT'

THE STATE UNIVERSITY OF NEW JERSEY
RUTGERS

Cook College • International Agricultural and Food Program Office
P.O. Box 231 • New Brunswick • New Jersey 08903 • 201. 932-5954

December 10, 1985

Dr. Laercio Nunes
Chief, CNPFT/EMBRAPA
Caixa Postal 403
96.100 Pelotas
RS, Brazil

Dear Dr. Nunes:

We are pleased to inform you that the grant from USAID for cooperative research on "Regulation of Chilling Sensitivity in Warm-Zone Crops" has finally been received. We are pleased that this grant provides an opportunity for collaboration between Rutgers University and CNPFT/EMBRAPA.

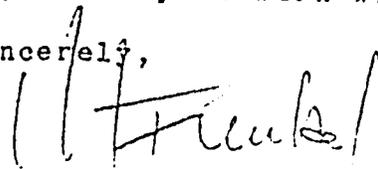
We have prepared a subcontract (enclosed with attachments from USAID) setting forth the responsibilities and obligations of both institutions in carrying out this project. The documents have been signed by the University's Comptroller and are enclosed for your review and signature. Please return the signed original and retain the copy for your files.

As stipulated in the contract, we will reimburse you for your expenses incurred in this project at quarterly intervals upon receipt of your claims. These should be sent to Dr. Hartford at the address indicated in the letterhead.

Dr. Frenkel will be contacting Dr. Araujo very shortly to make arrangements for the initiation of the project. Because of the delay in receipt of the grant, we will probably seek an extension from USAID.

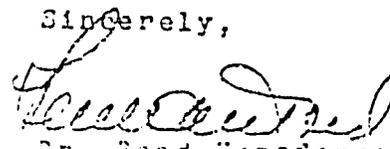
We have great expectations that the project will be successful and mutually beneficial to both of our institutions and welcome the opportunity to work with you.

Sincerely,



Dr. Chaim Frenkel
Professor

Sincerely,



Dr. Reed Hartford
Director, IAFP

cc. Dr. Paulo Araujo ✓

THE STATE UNIVERSITY OF NEW JERSEY
RUTGERS

Cook College • International Agricultural and Food Program Office
P.O. Box 231 • New Brunswick • New Jersey 08903 • 201-932-3954

SUBCONTRACT

between

RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY

and

CENTRO NACIONAL DE PESQUISA DE FRUTEIRAS DE CLIMA TEMPERADO/
EMPRESA BRASILEIRA DE PESQUISA AGROPECUARIA

This subcontract, entered into as of September 1, 1985 by and between Rutgers, the State University of New Jersey (hereinafter referred to as "Rutgers"), and the Centro Nacional de Pesquisa de Fruteiras de Clima Temperado of the Empresa Brasileira de Pesquisa Agropecuaria (hereinafter referred to as "CNPFT/EMBRAPA"),

Witnesseth that:

Whereas Rutgers received Grant FDC-5542G-SS-5105-00 from the U.S. Agency for International Development (hereinafter called "USAID") to undertake collaborative research on regulation of chilling sensitivity in warm zone crops with CNPFT/EMBRAPA; and

Whereas Rutgers desires to have CNPFT/EMBRAPA perform a part of the research activities;

Now, therefore, the parties hereto mutually agree as follows:

I. Scope of Work

CNPFT/EMBRAPA shall provide the services of Dr. Paulo Araujo as national project director for approximately 20 months over a three-year period. During that period Dr. Araujo will spend 12 of those months in New Brunswick, New Jersey as a direct employee of Rutgers, as outlined in the final proposal of February 3, 1985, which was submitted by Rutgers for consideration under the USAID Program in Science and Technology Cooperation.

II. Period of Agreement

CNPFT/EMBRAPA shall provide the services described herein between September 1, 1985 and August 31, 1988. This agreement shall remain valid through August 31, 1988.

III. Estimated Cost

The estimated maximum cost of this agreement shall be \$21,600. These costs shall be reimbursed in accordance with the following budget. Deviations in excess of 20 percent in any cost item category shall require prior approval from Rutgers University, P. O. Box 231, New Brunswick, NJ 08903, Telex 517522.

1. Research supplies	\$13,500
2. Research equipment	6,500
3. Travel and Transportation	1,600
4. Originals	
	<hr/>
Total	\$21,600

IV. Payment

Rutgers shall reimburse CNPFT/EMBRAPA for those costs detailed in Clause III above on the receipt of claims for reimbursement which are certified by CNPFT/EMBRAPA's fiscal representative.

V. Financial Reporting

CNPFT/EMBRAPA shall maintain and have available for audit purposes appropriate financial records for a period of three years following the termination of this agreement. CNPFT/EMBRAPA shall provide periodic progress and financial reports to Rutgers at mutually acceptable intervals.

VI. Insurance Liability

EMBRAPA shall acquire and maintain such insurance as is required for its employees affected by this agreement, including employer's liability, comprehensive general liability insurance, Defense Base Act Insurance, etc.

VII. Availability of Staff

If for medical reasons, or others beyond his/her control, an EMBRAPA staff member should be unable to provide the services described herein, Rutgers will reimburse EMBRAPA for all

costs and non-cancelable commitments incurred prior to such occurrence, provided EMBRAPA had on file on September 1, 1985, an up-to-date indication of medical fitness.

If an EMBRAPA staff member should fail to complete the services stipulated by this agreement for reasons within his/her control, Rutgers will not reimburse EMBRAPA for any expenses associated with his/her participation in this project.

VIII. Termination

This agreement may be terminated in whole or in part by either party with 60 days prior written notice. In the event of termination, credit shall be allowed for the amount required to settle any non-cancelable obligations incurred prior to the date of the notice of termination.

IX. General Provisions

The general provisions applicable to this subcontract consist of form AID-1420-23-C, "General Provision - Cost Reimbursement Contract with an Educational Institution" dated October 1982, and form AID 1420-23-D, "Additional General Provisions - Cost Reimbursement Contract with an Educational Institution" dated October 1982.

In addition to those documents cited above, this subcontract shall include schedules 1420-54A through 1420-54P.

CNPFT/EMBRAPA assures Rutgers that it will:

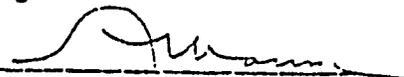
1. provide for accurate identification of the receipts and expenditures of project funds by approved budget cost categories,
2. provide for documentation supporting each book entry,
3. provide accurate and current financial reporting information.
4. be integrated with a strong system of internal control,
5. and will conform to any and all requirements or guidelines that AID may issue.

CNPFT/EMBRAPA shall be responsible to Rutgers for any and all costs disallowed in the event of subsequent audit within the subcontract.

In witness thereof, Rutgers and CNPFT/EMBRAPA have executed this agreement on the date first written above.

Rutgers

CNPFT/EMBRAPA

BY: 
Albert Hanna
Assistant Controller

BY: _____

DATE: November 20, 1985

DATE: _____

THE STATE UNIVERSITY OF NEW JERSEY
RUTGERS

Cook College • International Agricultural and Food Program Office
P.O. Box 231 • New Brunswick • New Jersey 08903 • 201-932-8954

January 28, 1986

Dr. Laercio Nunes
Chief, CNPFT/EMBRAPA
Caixa Postal 403
96.100 Pelotas, RS
Brazil

Dear Dr. Nunes:

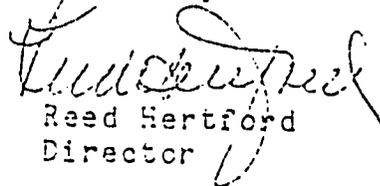
In reviewing the Rutgers University-CNPFT/EMBRAPA subcontract for the PSTC Project on "Regulation of Chilling Sensitivity in Warm-Zone Crops," it came to our attention that an error had been made in the budget figures. We regret this oversight and enclose an amendment which correctly states those figures, as approved by USAID in the final budget.

We would appreciate it if you would return the original contract and the amendment, with your signature, so that the project may get under way.

We look forward to the initiation of the project with you.

Best regards.

Sincerely,


Reed Hertford
Director

bc: RH Chron
Office Chron
C. Frenkel
File: PSTC/Frenkel

THE STATE UNIVERSITY OF NEW JERSEY
RUTGERS

Cook College • International Agricultural and Food Program Office
P.O. Box 231 • New Brunswick • New Jersey 08903 • 201 932-3954

Amendment # 1

SUBCONTRACT

between

Rutgers, The State University of New Jersey

and

Centro Nacional de Pesquisa de Fruteiras de Clima Temperado/
Empresa Brasileira de Pesquisa Agropecuaria

The budget of the subcontract is amended by deleting items 2 and 3 and substituting the following items:

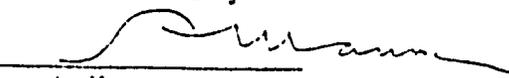
1. Research supplies	13,500
2. Research equipment	6,500
3. Travel and transportation	1,400
4. Overhead	2,980
	<hr/>
Total	\$24,380

Other terms and conditions remain unchanged.

In witness of this amendment, the parties hereto set their hands.

Rutgers University

CNPFT/EMBRAPA

By: 
Albert Hanna
Assistant Controller

By: _____

Date: January 23 1975

Date: _____

THE STATE UNIVERSITY OF NEW JERSEY
RUTGERS

Cook College • International Agricultural and Food Program Office
P.O. Box 231 • New Brunswick • New Jersey 08903 • 201/932-8954

February 28, 1986

Dr. Laercio Nunes
Chief, CNPFT/EMBRAPA
Caixa Postal 403
96.100 Pelotas
RS, Brazil

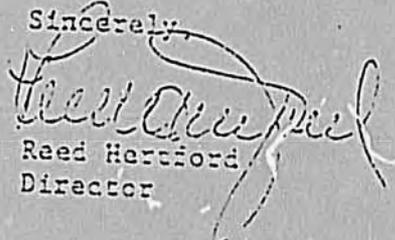
Dear Dr. Nunes:

We have not yet received the signed subcontract and amendment between our two organizations for collaborative research on "Regulation of Chilling Sensitivity in Warm-Zone Crops." Signed copies of these two documents are required by our contracts office before the project can begin. Please sign and return the enclosed copies of both the contract and subcontract.

When these formalities are completed, the project can get underway.

We look forward to working together.

Sincerely,


Reed Hartford
Director

RH:pk
Enc.

RH Chron
Office Chron
File: PSTC/Frenkel



MINISTÉRIO DA AGRICULTURA - MA

Empresa Brasileira de Pesquisa Agropecuária - **EMBRAPA**

C.ACI. 230 /86

August 14, 1986

Dear Mr. Hertford,

In reference to the Subcontract between Rutgers University, the State University of New Jersey, and the Brazilian Enterprise for Agricultural Research/National Research Center for Temperate Climate Fruits, we would like to inform you that EMBRAPA is very interested in its implementation.

However, we would like to request you to consider the following alterations in the proposed text:

1. The subcontractor shall be EMBRAPA - Empresa Brasileira de Pesquisa Agropecuária/CNPFT - Centro Nacional de Pesquisas de Fruteiras de Clima Temperado.

2. We request that the first paragraph of item 1 Scope of Work - be substituted by the following:

"EMBRAPA/CNPFT shall provide the services of one of its researchers as national coordinator of the project, for approximately twenty months over a period of three years. The researcher to be assigned by EMBRAPA may spend four months in New Brunswick, New Jersey, in two periods of approximately two months, at the expenses of the contracting agency..."

Mr. Reed Hertford
Director
Rutgers, the State University of New Jersey
Cook College
Int. Agricultural and Food Program Office
P.O. Box 231 -
New Brunswick
New Jersey 08903
U S A

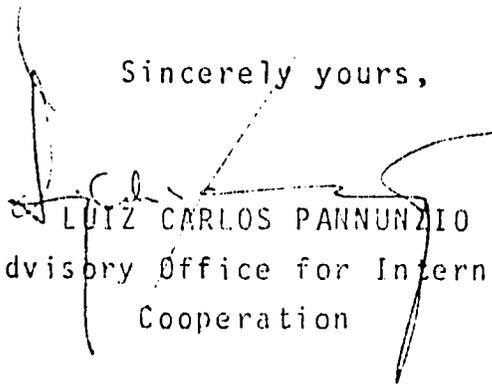
3. The alterations introduced in item I suggest an alteration in item III - Estimated Costs - to relocate resources related to subitem 3 - Travel and Transportation.

We would appreciate receiving copies of AID forms 1420-23-C and 1420-23-D, "General Provision - Cost Reimbursement Contract with an Educational Institution" and "Additional General Provisions - Cost Reimbursement Contract with an Educational Institution", respectively.

Your comments on the above mentioned alterations at your earliest convenience will be greatly appreciated.

With best regards, we are

Sincerely yours,



LUIZ CARLOS PANNUNZIO
Head, Advisory Office for International
Cooperation

THE STATE UNIVERSITY OF NEW JERSEY
RUTGERS

Cook College • International Agricultural and Food Program Office
P.O. Box 231 • New Brunswick • New Jersey 08903 • 201/932-8954

October 31, 1986

Dr. Luiz Carlos Pannunzio
Head, Advisory Office for
International Cooperation
EMBRAPA
The Ministry of Agriculture
Brasilia, Brazil

Ref. C.ACI. 230/86, August 14, 1986

Dear Dr. Pannunzio:

Your letter of August 14 presented several significant changes in the proposed collaboration between Rutgers University and EMBRAPA/CNPFT, with respect to the project, "Regulation of Chilling Sensitivity of Warm Zone Crops." I have discussed these with Dr. Chaim Frenkel, Rutgers University principal investigator, who has also consulted at length by telephone with Dr. Paulo Araujo of CNPFT. In order to adhere to the intent of the project, as approved by USAID, we must insist on the following points:

1. Dr. Paulo Araujo must continue in the capacity of co-principal investigator for EMBRAPA/CNPFT, due to the relevance of his earlier training with Dr. Frenkel.
2. Dr. Araujo will spend not less than 10 months, but preferably 12 months, in residence at Rutgers University over the duration of the project, preferably in one period.
3. If Dr. Araujo's residence at Rutgers University is broken into two periods, additional expenses must be borne by EMBRAPA/CNPFT from other budget categories (or other sources).
4. Expenditures of project funds by EMBRAPA/CNPFT must be made in consultation with the Rutgers principal investigator, Dr. Frenkel.

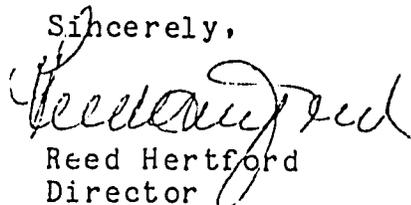
Dr. L. C. Pannunzio
p. 2

With regard to your request for AID forms 1420-23-C and 1420-23-D, I am forwarding this request to our Research Contracts office, which will mail copies of these forms to you.

Nearly a year has passed without signing the subcontract, and USAID is putting pressure on us to report progress on the project. Therefore we urge EMBRAPA/CNPFT to sign the enclosed documents (replacements of the original subcontract and amendment) without further delay, to avoid jeopardizing the project. If agreement cannot be reached and signed documents returned before the end of the year, we will have to consider other alternatives to collaboration with EMBRAPA/CNPFT.

We look forward to your earliest response.

Sincerely,



Reed Hertford
Director

Enc. Original subcontract
Amendment #1
cc: P. Araujo ✓
C. Frenkel

THE STATE UNIVERSITY OF NEW JERSEY
RUTGERS

Cook College • International Agricultural and Food Program Office
P.O. Box 231 • New Brunswick • New Jersey 08903 • 201/932-8954

SUBCONTRACT

between

RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY

and

CENTRO NACIONAL DE PESQUISA DE FRUTEIRAS DE CLIMA TEMPERADO/
EMPRESA BRASILEIRA DE PESQUISA AGROPECUARIA

This subcontract, entered into as of September 1, 1985 by and between Rutgers, the State University of New Jersey (hereinafter referred to as "Rutgers"), and the Centro Nacional de Pesquisa de Fruteiras de Clima Temperado of the Empresa Brasileira de Pesquisa Agropecuaria (hereinafter referred to as "~~CNPFT/EMBRAPA~~"),

Witnesseth that:

Whereas Rutgers received Grant PDC-5542G-SS-5105-00 from the U.S. Agency for International Development (hereinafter called "USAID") to undertake collaborative research on regulation of chilling sensitivity in warm zone crops with ~~(CNPFT/EMBRAPA)~~; and

Whereas Rutgers desires to have ~~(CNPFT/EMBRAPA)~~ perform a part of the research activities;

Now, therefore, the parties hereto mutually agree as follows:

I. Scope of Work

~~(CNPFT/EMBRAPA)~~ shall provide the services of Dr. Paulo Araujo as national project director for approximately 20 months over a three-year period. During that period Dr. Araujo will spend 12 of those months in New Brunswick, New Jersey as a direct employee of Rutgers, as outlined in the final proposal of February 3, 1985, which was submitted by Rutgers for consideration under the USAID Program in Science and Technology Cooperation.

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II. Period of Agreement

~~CNPFT~~/EMBRAPA shall provide the services described herein between September 1, 1985 and August 31, 1988. This agreement shall remain valid through August 31, 1988.

III. Estimated Cost

The estimated maximum cost of this agreement shall be \$21,600. These costs shall be reimbursed in accordance with the following budget. Deviations in excess of 20 percent in any cost item category shall require prior approval from Rutgers University, P. O. Box 231, New Brunswick, NJ 08903, Telex 517522.

1. Research supplies	\$13,500
2. Research equipment	6,500
3. Travel and Transportation	1,600
	<hr/>
Total	\$21,600

IV. Payment

Rutgers shall reimburse ~~CNPFT~~/EMBRAPA for those costs detailed in Clause III above on the receipt of claims for reimbursement which are certified by ~~CNPFT~~/EMBRAPA's fiscal representative.

V. Financial Reporting

~~CNPFT~~/EMBRAPA shall maintain and have available for audit purposes appropriate financial records for a period of three years following the termination of this agreement. ~~CNPFT~~/EMBRAPA shall provide periodic progress and financial reports to Rutgers at mutually acceptable intervals.

VI. Insurance Liability

EMBRAPA shall acquire and maintain such insurance as is required for its employees affected by this agreement, including employer's liability, comprehensive general liability insurance, Defense Base Act Insurance, etc.

VII. Availability of Staff

If for medical reasons, or others beyond his/her control, an EMBRAPA staff member should be unable to provide the services described herein, Rutgers will reimburse EMBRAPA for all

costs and non-cancelable commitments incurred prior to such occurrence, provided EMBRAPA had on file on September 1, 1985, an up-to-date indication of medical fitness.

If an EMBRAPA staff member should fail to complete the services stipulated by this agreement for reasons within his/her control, Rutgers will not reimburse EMBRAPA for any expenses associated with his/her participation in this project.

VIII. Termination

This agreement may be terminated in whole or in part by either party with 60 days prior written notice. In the event of termination, credit shall be allowed for the amount required to settle any non-cancelable obligations incurred prior to the date of the notice of termination.

IX. General Provisions

The general provisions applicable to this subcontract consist of form AID-1420-23-C, "General Provision - Cost Reimbursement Contract with an Educational Institution" dated October 1982, and form AID 1420-23-D, "Additional General Provisions - Cost Reimbursement Contract with an Educational Institution" dated October 1982.

In addition to those documents cited above, this subcontract shall include schedules 1420-54A through 1420-54P.

~~CNPFT~~/EMBRAPA assures Rutgers that it will:

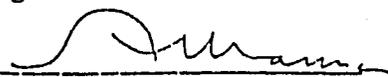
1. provide for accurate identification of the receipts and expenditures of project funds by approved budget cost categories,
2. provide for documentation supporting each book entry,
3. provide accurate and current financial reporting information.
4. be integrated with a strong system of internal control,
5. and will conform to any and all requirements or guidelines that AID may issue.

~~CNPFT~~/EMBRAPA shall be responsible to Rutgers for any and all costs disallowed in the event of subsequent audit within the subcontract.

In witness thereof, Rutgers and ~~CNPFT~~ EMBRAPA have executed this agreement on the date first written above.

Rutgers

BY: _____


Albert Hanna
Assistant Controller

DATE: _____

November 20, 1985

~~CNPFT~~ EMBRAPA

BY: _____

DATE: _____

THE STATE UNIVERSITY OF NEW JERSEY
RUTGERS

Cook College • International Agricultural and Food Program Office
P.O. Box 231 • New Brunswick • New Jersey 08903 • 201/932-8954

Amendment # 1

SUBCONTRACT

between

Rutgers, The State University of New Jersey

and

Centro Nacional de Pesquisa de Fruteiras de Clima Temperado/
Empresa Brasileira de Pesquisa Agropecuaria

The budget of the subcontract is amended by deleting items 1, 2 and 3 and substituting the following items:

1. Research supplies	\$13,500
2. Research equipment	6,500
3. Travel and transportation	1,400
4. Overhead	2,980
	<hr/>
Total	\$24,380

Other terms and conditions remain unchanged.

In witness of this amendment, the parties hereto set their hands.

Rutgers University

CNPFT/EMBRAPA

By: Albert Hanna
Albert Hanna
Assistant Controller

By: _____

Date: Jan 23 1986

Date: _____

II. INFORMATION TRANSFER AND EXCHANGE

1. PI travel to Panama and Brazil.

The PI traveled to Panama June 4 to 14, 1986 and to Brazil on June 15 to 21, 1986.

a. In Panama City a meeting with Dr. M.P. Gupta, Director of Technical Cooperation and Assistance, The University of Panama, was used to discuss and affirm the objectives of the project. The PI proceeded to the Penenome Campus (60 miles from Panama City) where Giselle Benjamin, the Panama Co-PI will carry out the work.

Penenome is situated in a production agriculture region and is, therefore, a suitable site for work on freshly harvested crops. An inspection of the facilities revealed, however, a need for tooling up. Moreover, the Panama Co-PI, although an able scientist, did not have training on the specific technology required for the project. These observations led to the decision to have the Panama Co-PI visit the U.S.A. to (a) acquire the necessary technical expertise, mainly construction and handling of mixed gases delivery systems and gas measurements and (b) based on this experience to compile a list of the necessary facilities.

The PI is impressed that in Panama there was a constructive administrative attitude and a very sound scientific level. With the additional training and the required facilities the project could be carried out effectively.

b. In Brazil the worksite is the CNPFT/EMBRAPA Experiment Station in Pelotas, in the south-most state of Rio Sul (Climate conditions roughly equivalent to central California).

The Brazilian Co-PI Dr. Paulo J. Araujo is a Rutgers University graduate with training in post harvest physiology and the appropriate expertise required for the project. The facilities moreover, are good. From the standpoint of professional standards and resources, Brazil is well suited to contribute effectively.

The constraint is the attitude of the (new) administration. In spite of the express approval of the project by the previous administration (copy attached), the present one appears to resist the project. As indicated above (#I.2.) the Brazilian request to change the Co-PI and limitation on the exchange time in the U.S. are not acceptable.

While in CNPFT/EMBRAPA the PI visited extensively farm

operations, agro-industries, and local produce markets to better understand the Brazilian concerns.

A seminar entitled "Role of Postharvest Preservation in the Production Opportunities of Warm-Zone Agriculture" was presented also to the station personnel and invited industry guests.

The PI is impressed that Brazil, by virtue of the qualified personnel and the facilities, is very well suited for the work. A way may be found to release this potential from the present constraint.

2. Panama Co-PI travel to the U.S.A.

Following the PI site visit (II.1) the Panama Co-PI came to Rutgers University (September 15 to October 2, 1986) for a training period in gas measurements, gas delivery systems and the design for other experimental conditions. Upon her return she set out to implement the appropriate experimental conditions (please see below III.1).

3. Brazil Co-PI travel to the U.S.A.

Dr. Paulo Araujo the designated Brazilian Co-PI came for an exchange period at his own expense during the month of April 1986.

III. WORK IN PROGRESS

1. In Panama:

The Panama Co-PI is charged with the pursuit of the overall objective: effect of reduced oxygen activity on the amelioration of chilling sensitivity of warm-zone crops. Reduced oxygen activity will be obtained by:

- a. low oxygen concentration (roughly 2%) in the ambient atmosphere.
- b. depressed oxygen partial pressure (2% equivalence under atmospheric conditions) using hyperbaric (sub-atmospheric pressure) conditions.

Following her training period (please see II.1.a.) the Panama Co-PI had contracted for the construction of cold chambers and hypobaric units and has begun the assembly and construction of gas delivery and measurement systems. She will also develop the methods for measuring chilling stress by respiratory changes, ethylene evolution and disease incidence. The appropriate equipment will be procured, including FID and TC gas chromatographs for gas analyses.

In Penonome Panama there is a wide selection of commodities which are presently economically important (e.g., papaya) and will be used as test material. Others e.g., mango (Mangifera indica), guava (Psidium guajava) or cherimoya (Annona cherimola) are also suitable experimental material, and if effectively preserved, may become economically important.

2. In Rutgers University:

Nitrous oxide (N_2O) is presumed to be an oxygen-competitive gas and may be used as an additional method for reducing the oxygen activity in tissues. Work is underway to determine a. at what oxygen levels N_2O becomes O_2 -competitive and b. the required N_2O levels for effective activity.

3. Brazil

Dr. Araujo, the Brazilian Co-PI, initiated some work on his own. Pending the approval and the signing of a sub-contract the work will be scaled up.

IV. EXPENDITURES

1. Budget summery (list attached)

2. Travel (copy attached)

PI to Panama and Brazil
Panama Co-PI to the U.S.A.

3. Supplies

Budget summery (copy attached)
List of major expenditures for gas handling for
Rutgers University (copies attached)

HID - WARM LONE CROSS

Budget & Expenses

As of 9/30/86

	1	2	3	4	5	6
	APPROVED Budget Category	Budget	ACTUAL Expenses 9/30/86	OPEN Commit- ments	BALANCE	
1	SALARIES & BENEFITS	37500	—		37500	
2	TRAVEL	8808	690	1131	6987	
3	MATERIAL & SUPPLIES	21000	6978	—	14022	
4	Sub-CONTRACT - PANAMA	24785	—	—	24785	
5	- BRAZIL	24350	—	—	24380	
6	OVERHEAD - 25% AID CONTRIB.	16827	1917	283	14627	
7	TOTAL	133300	9585	1414	122301	
8						
9						
10						
11						
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14						
15	Prepared by: Carol Jensen					
16	Business Manager/ITAP					
17	10/27/86					
18						
19						
20	PERIOD OF GRANT - 2-25-85 - 8/30/88					
21	GRANT # PDC - 5542-G-SS - 5105-00					
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Travel

3500

DATE	DESCRIPTION	1		2		3		4		5		6	
		P.O. #	OR	AMOUNT	TOTAL (CUMUL)	ADJUST MENTS	ACTUAL PAYMENT	PAYMENT TOTAL					
	Budget				8808-								
7/3	Chaim Finkel	I6210065		690-									
9/5	Travel Israel /												
	Elisella Korman	I6211583		769-	7349-								
10/9	Continuing Educa /												
	G. BEU Jamin	I6210048		36165	698735								
	--												

Material & Supplies

4-28203

2/00

DATE	DESCRIPTION	P.O. # OR OTHER	AMOUNT	TOTAL (CUMUL)	ADJUST MENTS	ACTUAL PAYMENT	PAYMENT TOTAL
1	1986						
2	4 7	Bodman Chemical R803482	560 -				
3	✓	Supplies Inc R903483	65 -				
4	5 15	Fisher Scientific R803484	1267.15				
5	✓	Fisher Scientific R803488	2676.82	5159.86			
6	6 23	Adj. Fisher R803484	507.24				
7	3 6	Academy Press 6208474	61.59				
8	2 2	22	67.41	5339.61			
9	6 30	Adj/Bodman Chemical R903482	1.29				
10	5 16	Fisher Scientific R03487	456.65				
11	6 2	ANR Publications 6216527	20 -				
12	6 6	SUPELCO INC/Adj R803483	130 -				
13	5 12	Sigma Chem Co. R803486	50.25				
14		ALL TECH Assoc R803485	1128.69	1477.73			
15							
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1 pack	Red rubber stoppers for serum & vaccine bottles sleeve stoppers size 13	14.126AA	14.10	14.10
1 pack	Red rubber stoppers for serum & vaccine bottles sleeve stoppers size 15	14.126DD	36.00	36.00
5 units	Multiple cylinder regulator for carbon dioxide	10-572F	96.72	483.60
2 units	Multiple cylinder regulator for helium	10-572K	99.06	198.12
2 units	Multiple cylinder regulator for hydrogen	10-572N	99.06	198.12
5 units	Multiple cylinder regulator for nitrogen	10-572Q	96.72	483.60
5 units	Multiple cylinder regulator for oxygen	10-572S	96.72	483.60
5 units	Multiple cylinder regulator for air	10-572Y	96.72	483.60
2 units	Multiple cylinder regulator for nitrous oxide	10-572W	96.72	193.44
2 units	Multiple cylinder regulator for acetylene	10-572A	96.72	193.44
1 bench mounted monostat flowmeter		11-16375C	188.76	188.76
1	bench mounted monostat flowmeter	11-16375E	188.76	188.76
1 case	Black thick wall rubber tubing	14.158D	41.10	41.10
1 case	Black thick wall rubber tubing	14.158F	53.10	53.10
2 reels	Amber thick wall rubber tubing	14.178-2CC	20.40	40.80
3 packs	Hoffman open side tubing clamps	05.875A	8.10	24.30
6 units	vacuum gauges	11.279A	31.20	187.20
3 units	Glass cutter griffing type	11.340	6.00	18.00
10	Freeze-guide thermometer	15.105-5	4.25	42.50
3	Temperature-compensated hand refractometer	13.946-60A	108.42	<u>325.26</u>
				\$4,267.18

CONFIRMING

